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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,400	03/19/2001	Lester F. Ludwig	2152-3005	7356

35884 7590 11/13/2009
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EXAMINER	
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ART UNIT	PAPER NUMBER
2832	

NOTIFICATION DATE	DELIVERY MODE
11/13/2009	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LESTER F. LUDWIG

Appeal 2009-002201[1]
Application 09/812,400
Technology Center 2800

Decided: November 10, 2009

Before JOSEPH F. RUGGIERO, JOHN A. JEFFERY, and
MARC S. HOFF, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 30-60. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

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[1] Appellant indicates that six related appeals have been filed. Supp. Br. 2. These appeals, however, do not materially affect our decision in this appeal.

STATEMENT OF THE CASE

Appellant invented a system for generating Musical Instrument Digital Interface (MIDI) control signals. In one implementation, control signal values are obtained from incoming MIDI control signals and processed, and an outgoing MIDI control signal is generated based on this processing.[2] Claim 30 is illustrative:

30. A control signal processing system for responsively generating MIDI control signals, said system comprising:

an incoming control signal interface adapted to receive an incoming MIDI control signal;

a controllable low frequency oscillator comprising at least one parameter, said at least one parameter comprising a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MIDI control signal, and wherein said controllable low frequency oscillator is adapted to generate an outgoing MIDI control signal responsive to said value of said at least one parameter; and

an outgoing control signal interface adapted to communicate said outgoing MIDI control signal.

The Examiner relies on the following as evidence of unpatentability:

Clark, Jr.	US 4,365,533	Dec. 28, 1982
Wallace	US 5,095,799	Mar. 17, 1992
Sgroi	US 5,357,048	Oct. 18, 1994
Lindemann	US 5,744,742	Apr. 28, 1998
Suzuki	US 5,981,859	Nov. 9, 1999

[2] *See generally* Abstract; Figs. 63-67.

1. The Examiner rejected claims 30-40 under 35 U.S.C. § 102(e) as anticipated by Suzuki. Ans. 4-6.[3]
2. The Examiner rejected claim 41 under 35 U.S.C. § 103(a) as unpatentable over Suzuki and Lindemann. Ans. 6.
3. The Examiner rejected claim 42 under 35 U.S.C. § 103(a) as unpatentable over Suzuki, Clark, and Wallace. Ans. 6-7.
4. The Examiner rejected claims 43-60 under 35 U.S.C. § 103(a) as unpatentable over Suzuki and Sgroi. Ans. 7-8.

THE ANTICIPATION REJECTION

Regarding independent claim 30, the Examiner finds that Suzuki discloses all claimed subject matter including:

(1) an "incoming control signal interface adapted to receive an incoming MIDI[4] control signal" which the Examiner equates to Suzuki's performance event generator 11 and network interface 56;

(2) a "controllable low frequency oscillator" (LFO) which the Examiner equates to Suzuki's LFO 17;

(3) the controllable LFO comprising at least one "parameter" which is said to (a) be associated with performance event generator 11 and tone color information generator 12, and (b) have a value determined by the incoming

[3] Throughout this opinion, we refer to (1) the Appeal Brief filed January 14, 2008 (supplemented September 8, 2008); (2) the Examiner's Answer mailed April 15, 2008; and (3) the Reply Brief filed June 16, 2008.

[4] MIDI stands for "Musical Instrument Digital Interface." *See, e.g.*, Suzuki, col. 1, l. 43.

MIDI control signal—a signal which is said to be provided by Suzuki's performance event generator 11 and tone color information generator 12; and

(4) the controllable LFO adapted to generate an outgoing MIDI control signal responsive to the parameter's value. Ans. 4 and 9-12.

Appellant makes three main arguments. First, Appellant contends that Suzuki's performance event generator 11 does not generate MIDI signals, but rather generates a performance event (e.g., a key-on/off event). Appellant emphasizes, however, that this functionality has nothing to do with MIDI signals. App. Br. 11-13; Reply Br. 3-4.

The Examiner, however, takes the position that since Suzuki teaches that a keyboard can function as the performance event generator, such a keyboard would be electronic, and therefore inherently have a MIDI interface. Ans. 9. The Examiner also cites Suzuki's reference to MIDI in the patent's background section which, according to the Examiner, "places the apparatus of Suzuki in the realm of MIDI." Ans. 10. The Examiner also refers to Suzuki's MIDI interface 56 which is said to allow other instruments to communicate with the apparatus. *Id.*

Appellant also argues that even if Suzuki's tone color information generator 12 teaches the claimed "parameter" as the Examiner asserts, this parameter cannot be determined *by the incoming MIDI control signal* (which the Examiner indicates is provided by performance event generator 11) since there is no communication from performance event generator 11 to tone color information generator 12. App. Br. 13-15; Reply Br. 5.

The Examiner, however, contends that not only do both generators 11 and 12 have associated "parameters," but they also provide "incoming MIDI signals" to unit controller 13. Ans. 11. According to the Examiner, the controller 13 generates a control "parameter" in accordance with the performance event generator and tone color information. *Id.*

Lastly, Appellant argues that Suzuki's LFO 17 does not generate MIDI signals. Although Appellant admits that Suzuki mentions MIDI (1) in the background section of the patent, and (2) in connection with a network interface used in a software implementation, Appellant nevertheless contends that this disclosure does not mean that LFO 17 generates MIDI signals. App. Br. 15-16; Reply Br. 6.

The Examiner, however, maintains that MIDI signals are input to the LFO from unit controller 13. Ans. 12.

The issue before us, then, is as follows:

ISSUE

Under § 102, has Appellant shown that the Examiner erred in rejecting claim 30 by finding that Suzuki discloses:

(1) an incoming control signal interface adapted to receive an incoming MIDI control signal; and

(2) a controllable LFO that:

(a) comprises at least one parameter whose value is determined by the incoming MIDI control signal; and

(b) is adapted to generate an outgoing MIDI control signal responsive to the parameter's value?

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence:

Suzuki

1. Suzuki discloses a system for generating musical tone signals comprising a multi tone generator TC which has different tone generators TC1-TC3 that share a common control unit 5. Suzuki, col. 1, ll. 9-12; col. 2, ll. 45-59; Fig. 1.

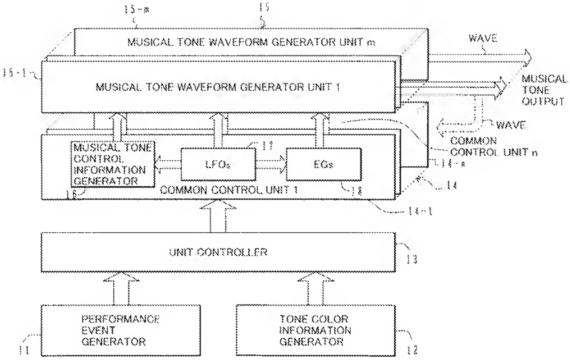
2. Suzuki's multi tone generator comprises:

(1) a performance event generator 11 (e.g., a keyboard and/or an automatic performance apparatus such as a sequencer) that generates and/or outputs a performance event (e.g., a key-on/off event);

(2) a tone color information generator 12 that generates tone color information (tone color parameter) that is supplied to the unit controller 13; and

(3) a unit controller 13 that (a) generates a control parameter in accordance with a performance event and tone color information, and (b) supplies the control parameter to one of plural common control units 14 which, in turn, generates a musical tone parameter that is supplied to a musical tone waveform generator unit 15. Suzuki, col. 3, l. 34 – col. 4. l. 9; Fig. 2.

This multi tone generator functionality is shown in Figure 2 reproduced below:



Reproduction of Figure 2 of Suzuki Showing the Multi Tone Generator

3. Suzuki notes in the Background section that conventionally multiple tone generators of different types are interconnected via MIDI to configure an integrated tone generator system mixed with multiple tone generators. Such a system, however, is bulky and expensive. Suzuki, col. 1, ll. 35-47.

4. Figure 6 shows a multi tone generator realized by a software tone generator. This configuration includes a bus 59 that interconnects a number of components including a CPU 51, RAM 53, ROM 54, memory device 55, and a network interface 56. Suzuki, col. 6, ll. 21-28; Fig. 6.

5. “The network interface 56 may be a modem, an Ethernet interface, a MIDI interface, or an RS-232 interface, which enables connection to one of various networks.” Suzuki, col. 7, ll. 23-25; Fig. 6.

6. The network interface 56 is connected to a server computer 65 via communications network 64. Upon request, the server computer can supply a tone generator driver or the like that is not stored locally to the multi tone generator via the communications network. Suzuki, col. 7, ll. 34-49; Fig. 6.

PRINCIPLES OF LAW

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. *RCA Corp. v. Appl. Dig. Data Sys., Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984); *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554 (Fed. Cir. 1983).

To anticipate under § 102, the prior art reference "must not only disclose all elements within the four corners of the document, but must also disclose those elements arranged as in the claim." *Net MoneyIn, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (citation and internal quotation marks omitted).

"Thus, it is not enough that the prior art reference discloses part of the claimed invention, which an ordinary artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention." *Id.* at 1371. *See also In re Arkley*, 455 F.2d 586, 587 (CCPA 1972) ("[T]he [prior art] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.").

ANALYSIS

Independent claim 30 calls for, in pertinent part, (1) the incoming control signal interface is adapted to receive an incoming MIDI control signal, and (2) this MIDI control signal determines the value of the controllable LFO's parameter.

The Examiner reads the "incoming control signal interface" on two different components in Suzuki: (1) performance event generator 11, and (2) network interface 56. Ans. 4. Since these components pertain to different embodiments of Suzuki, namely the multi tone generators of Figures 2 and 6 respectively (*compare* FF 2 *with* FF 4), we examine each in turn.

First, we agree with Appellant (Reply Br. 2-3) that Suzuki's performance event generator 11 is not necessarily adapted to receive an incoming MIDI control signal as claimed. The performance event generator 11 can be a keyboard or a sequencer that generates a "performance event" (e.g., a key-on/off event). FF 2. Even assuming, without deciding, that signals associated with these events can somehow be "received" by the same device that produces them (i.e., the performance event generator 11), we still fail to see how these signals are *necessarily* MIDI control signals.

Although the Examiner is correct that a keyboard producing the key-on/off event would be electronic (Ans. 9), that hardly means that it would have a MIDI interface. The Examiner's assertion that an electronic keyboard would *inherently* have a MIDI interface is speculative and unsupported by any evidence on this record. Moreover, the Examiner effectively asserts that *all* electronic keyboards would have this interface by

virtue of this inherency—even those that existed before the MIDI standard was developed.[5] Such an assertion is simply unreasonable, and Appellant's point in this regard (Reply Br. 3) is well taken.

Although Suzuki does discuss MIDI in connection with a conventional integrated tone generator (FF 3), this passage merely describes the background of the invention (i.e., the state of the art) and, at best, indicates that MIDI was known at the time of Suzuki's invention. *See id.* Not only does this passage highlight the drawbacks of conventional MIDI implementations (*see id.*), it hardly means that the performance event generator 11 in Figure 2 would necessarily be adapted to receive incoming MIDI control signals as claimed.

We reach the same conclusion regarding Suzuki's MIDI interface 56. Notably, MIDI interface 56 is described in connection with a software implementation of a multi tone generator in Figure 6 and, as such, is directed to a different embodiment than the multi tone generator of Figure 2. *Compare* FF 2 *with* FF 4. For this reason alone, the Examiner's anticipation rejection is problematic since an anticipatory prior art reference "must not only disclose all elements within the four corners of the document, but must also disclose those elements *arranged as in the claim.*" *Net MoneyIn,* 545 F.3d at 1369 (emphasis added; citation and internal quotation marks omitted). That is, the Examiner's anticipation rejection cannot be based on merely picking and choosing multiple, distinct teachings from Suzuki that

[5] *See, e.g.*, "The Complete MIDI 1.0 Detailed Specification," MIDI Mfr's Ass'n, http://www.midi.org/techspecs/midispec.php (last visited Oct. 25, 2009) (noting that the original MIDI specification was written in 1982).

could somehow be combined to arrive at the claimed invention. *See id.* at 1371. *See also Arkley*, 455 F.2d at 587. Rather, to anticipate, Suzuki must disclose every recited element *arranged as in the claim*—which it does not.

In any event, even if we assume, without deciding, that Suzuki's MIDI interface 56 was somehow applicable to the multi tone generator of Figure 2 (a finding which has not been made on this record), we still fail to see how the value of the controllable LFO's parameter would necessarily be determined by signals incoming to this interface. Although we can see Suzuki's MIDI interface 56 being adapted to receive incoming MIDI control signals, it is nevertheless used for a completely different purpose—namely, to obtain a driver that is not stored locally from a remote server computer via a communications network. *See* FF 5-6. To say that these control signals would necessarily determine the value of the parameter of the LFO would require us to resort to speculation. That we will not do.

For the foregoing reasons, Appellant has persuaded us of error in the Examiner's rejection of independent claim 30 and independent claim 40 which recites commensurate limitations. Therefore, we will not sustain the Examiner's rejection of those claims, and dependent claims 31-39 for similar reasons.[6]

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[6] We note, however, that Appellant's contentions that the Examiner allegedly entered a new ground of rejection (Reply Br. 2, 3, and 6) are directed to petitionable matters—not appealable matters—and are therefore not before us. *See* MPEP § 706.01 ("[T]he Board will not hear or decide issues pertaining to objections and formal matters which are not properly before the Board."); *see also* MPEP § 1201 ("The Board will not ordinarily hear a question that should be decided by the Director on petition….").

THE OBVIOUSNESS REJECTION OVER SUZUKI AND SGROI

Regarding claims 43-60, the Examiner finds that Suzuki in Figures 2, 9, and 11-13 discloses all of the claimed subject matter except for (1) multiplying the control signal values, and (2) velocity and note number values. Ans. 7-8. The Examiner, however, relies on Sgroi for these features in concluding the claims would have been obvious. Ans. 8.

Appellant makes three main arguments:

(1) neither Sgroi nor Suzuki provide MIDI control signals as claimed (App. Br. 20-21; Reply Br. 7-8);

(2) multiplication is not "fast adding" as the Examiner asserts (App. Br. 21-22; Reply Br. 8-9); and

(3) the Examiner's rejection fails to address independent claims 51-57 (App. Br. 22-23; Reply Br. 9-10).

The Examiner, however, refers to Sgroi's Figures 2-4 as disclosing plural MIDI inputs, and likewise asserts that Suzuki discloses plural MIDI inputs. Ans. 12. Also, the Examiner contends that multiplication is "fast adding" since it is ostensibly a faster way of adding numbers. Ans. 13. Lastly, the Examiner contends that claims 51-57 were addressed in the rejection of claims 43-60. *Id.*

The issue before us, then, is as follows:

ISSUE

Under § 103, has Appellant shown that the Examiner erred in rejecting claims 43-60 by finding that Suzuki and Sgroi collectively teach or suggest (1) obtaining MIDI control signals and associated values; (2)

processing these signals and values as recited; and (3) generating an outgoing MIDI control signal based on this processing as claimed?

FINDINGS OF FACT

The record supports the following additional findings of fact (FF) by a preponderance of the evidence:

Suzuki

7. Suzuki's Figure 9 illustrates a calculation method executed by common control unit 14. The technique involves sending a number of different signals and parameters (e.g., constants, low frequency signals, envelopes, musical tone signals, etc.) to calculation combiners 81. The calculation combiners then (1) execute calculations using these parameters and signals, and (2) supply the calculation results to a common control parameter generator 86. Suzuki, col. 8, l. 65 – col. 9, l. 18; Fig. 9.

8. The box representing calculation combiners 81 in Figure 9 is labelled with an "X." Suzuki, Fig. 9.

9. Common control parameter generator 86 generates common control parameters and stores them in a buffer. Suzuki, col. 9, ll. 34-36; Fig. 9.

10. Figure 10 details the main routine that the CPU executes. In this routine, if the driver 1 is instructed to be activated, the tone generator driver (musical tone generator) is processed at step SA8. Suzuki, col. 9, ll. 55-56; col. 10, ll. 14-19; Fig. 10.

11. Figures 11-13 illustrate the tone generator driver's operation in step SA8. In steps SB14-SB17, waveforms of the PCM, FM, and physical model tone generators are generated and stored in a buffer ("WAVEBUF").

Then, the buffer's contents are copied to another buffer for a particular channel number and added to the register "ACCM" which stores an accumulation of all channels' waveforms. Suzuki, col. 11, ll. 39-67; Fig. 12.

12. At step SB22, a musical tone signal corresponding to the waveform value in register ACCM is then supplied to a D/A converter and reproduced from the sound system. Suzuki, col. 12, ll. 10-14; Fig. 12.

Sgroi

13. Sgroi discloses a MIDI controller that can automatically randomize four key elements of sound (i.e., timbre, pitch, volume, and dynamic response) on multiple MIDI channels to produce new sounds. Sgroi, Abstract.

14. Figure 2 illustrates a MIDI electronic music system including (1) MIDI source 22 (e.g., a MIDI controller, synthesizer, sequencer, etc.); (2) MIDI sound generators 24; and (3) sound system 26. Sgroi, col. 3, ll. 17-27, 50-55; Fig. 2.

15. Figure 2 shows (1) a MIDI data path between MIDI source 22 (dashed arrows), and (2) an audio signal path between the MIDI sound generators 24 and sound system 26 (solid arrows). Sgroi, Fig. 2.

16. Figure 3 shows a MIDI-controllable electronic synthesizer. A MIDI signal 46 is routed to MIDI data processor 30. Notes are generated by waveform generators 34 and modified by waveform modifiers 36-40. Then, the outputs are summed 42 to produce the audio output 44. Sgroi, col. 3, ll. 28-49; Fig. 3.

17. Figure 4 illustrates a MIDI controller 51 comprising (1) note modifiers 48; (2) switch inputs 52; and (3) keyboard 56 whose outputs are routed to scanner 54. The scanner (1) generates events (e.g., note on, note off, timbre change, volume change, pitch bend, etc.) based on changes on the received inputs, and (2) writes the events to event compiler 58 (a buffer). Sgroi, col. 3, l. 56 – col. 4, l. 23; Fig. 4.

18. The MIDI controller's processor 62 implements a series of subroutines that convert events into MIDI commands. Specifically, processor 62 (1) retrieves the next event from the event compiler; (2) executes the subroutine corresponding to that event; and (3) transmits the appropriate MIDI command from the MIDI Out port 66. Sgroi, col. 5, ll. 1-58; Fig. 4.

19. MIDI controller 51 includes a randomizer 64 that performs a high level additive synthesis where entire timbres (waveforms and modifiers) are combined to create new sounds. This is fulfilled through the MIDI standard protocol. Sgroi, col. 6, ll. 25-29; Fig. 4.

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). If the Examiner's burden is met, the burden then shifts to the Appellant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

ANALYSIS

We begin by noting several key distinctions between independent claims 43, 46, 49, and 51-57. Claim 43 calls for obtaining first and second control signal values from respective MIDI control signals; (2) multiplying these control values; and (3) generating an output MIDI control signal based upon the multiplied value. Claim 46 recites similar limitations except that the values are added instead of multiplied. Claim 49 likewise recites (1) obtaining multiple control signal values from MIDI control signals, and (2) generating an outgoing MIDI control signal based on combining these values along with a temporal sequence of events.

Claims 51-53 and 57 recite methods for processing real-time MIDI control signals including:

(1) obtaining specific types of MIDI values (i.e., note number, note velocity, continuous controller) from specific types of incoming MIDI control signals (i.e., note event, continuous controller);

(2) changing these particular types of MIDI values to a different type of MIDI value; and

(3) generating an outgoing real-time MIDI control signal comprising the new MIDI value obtained in step (2) above.

Claims 54-56 recite similar processing methods, but specify that the obtained MIDI value is a MIDI continuous controller value that is (1) multiplied by a scale value (claim 54); (2) added to an offset (claim 55); and (3) has an outgoing value whose magnitude is complementary to the incoming value (claim 56).

Turning to the rejection, the Examiner asserts that Suzuki discloses obtaining the recited control signal values from first and second MIDI control signals, respectively, and generating an outgoing MIDI control signal based upon a "multiplied (added) value." Ans. 7. Notwithstanding the Examiner's position that adding these values is equivalent to multiplying them (Ans. 7 and 13), the Examiner nonetheless concedes that Suzuki does not multiply these values, but rather sums them, and relies on Sgroi to cure this deficiency. Ans. 8.

Leaving aside the Examiner's seemingly inconsistent positions regarding multiplication articulated in the Answer, we find that the Examiner's rejection simply does not establish a prima facie case of obviousness for more fundamental reasons.

First, Suzuki fails to reasonably teach or suggest the recited incoming MIDI control signals, let alone obtaining and processing their corresponding values as a basis for generating a corresponding outgoing MIDI control signal as claimed. Our previous discussion regarding Suzuki applies equally here and we incorporate that discussion by reference.

Although the Examiner refers to Figures 2, 9, and 11-13 of Suzuki in the rejection (Ans. 7), the Examiner does not explain how the functionality shown in these figures actually teaches or suggests the recited limitations involving specific MIDI signals and values apart from a conclusory assertion that merely reproduces the claim language. Such conclusory assertions without supporting explanation and analysis fall well short of establishing a prima facie case of obviousness.

In any event, we find the Examiner's reliance on these figures of Suzuki unavailing since, as we indicated previously, Suzuki does not teach that this functionality pertains to MIDI signals, let alone the particular MIDI signals, values, and associated transformations recited in the claims. To be sure, Suzuki's Figure 9 shows a calculation method that involves sending a number of different signals and parameters (e.g., constants, low frequency signals, envelopes, musical tone signals, etc.) to "calculation combiners" 81. FF 7. And these calculation combiners are labelled with an "X" in the corresponding box in Figure 9—a label which could suggest multiplication of the associated signals and values. Nevertheless, the Examiner has not shown—nor can we find—anything in Suzuki that would reasonably suggest that these signals or values could or would comprise MIDI signals or values. As we indicated previously, Suzuki's two brief references to MIDI (FF 3 and 5) hardly mean that the functionality in Figure 9 would involve MIDI signals or values.

We reach the same conclusion regarding Figures 11 through 13 of Suzuki. Although Figure 12 shows that various tone generator waveforms are (1) copied to buffers, and (2) added to a register that stores an accumulation of all channels' waveforms (FF 11), the Examiner has still failed to show that MIDI signals or values could or would be used in this system. Absent an explanation or reasoned analysis regarding Suzuki's functionality as it pertains to claims 43-60, the Examiner's reliance on Suzuki is problematic as it requires us to resort to speculation as to how the recited MIDI implementation could be achieved in this system. We decline to engage in such an inquiry in the first instance on appeal.

Although Sgroi does disclose MIDI implementations (FF 13-19), the Examiner has still failed to explain how this functionality could or would be applied to Suzuki's system to arrive at the claimed invention. Apart from merely referring to Sgroi's figures and asserting that these figures correspond to certain limitations (Ans. 8, 12, and 13), the Examiner simply does not provide any supporting explanation or articulated basis as to how this functionality could or would be combined with that of Suzuki to teach or suggest the disputed limitations in claims 43-60. Simply put, the Examiner's mere reference to figure numbers in Sgroi is tantamount to a conclusory assertion without the requisite analysis and reasoned basis to support this assertion. For these reasons alone, the Examiner's rejection falls short of establishing a prima facie case of obviousness for claims 43-60.

To be sure, Sgroi does disclose a MIDI electronic music system including a MIDI source (e.g., a MIDI controller, synthesizer, sequencer, etc.) FF 14. Sgroi also discloses a MIDI controller 51 that processes MIDI-based signals corresponding to events (e.g., note on, note off, timbre change, etc.) (FF 17). Although the MIDI controller's processor 62 converts these events into MIDI commands (FF 18), it is unclear whether this conversion process would reasonably correspond to the recited MIDI processing methods which involve obtaining particular MIDI values from particular MIDI signals—a finding that has simply not been made on this record. Nor will we engage in such a finding in the first instance on appeal.

We reach a similar conclusion regarding the functionality of the MIDI controller's randomizer 64—a component that performs high-level additive synthesis via the MIDI standard to create new sounds (FF 19). But here again, we are at a loss as to what, if any, relevance this randomizer (or any

other MIDI-based component in Sgroi) would have regarding the specific limitations of claims 43-60. The Examiner has made no such finding; nor will we do so here in the first instance on appeal.

Lastly, we agree with Appellant (App. Br. 22-23; Reply Br. 9-10) that the Examiner's rejection fails to adequately address the specific limitations of independent claims 51-57—claims which recite particular limitations that distinguish them from the other independent claims as we noted previously. Although the Examiner does refer to Sgroi in connection with velocity and note number values (Ans. 8)—values that are recited in claims 51-53 and 57—this brief reference hardly addresses the distinct combinations of certain types of values and their corresponding transformations and modifications recited in claims 51-57. Consequently, the Examiner has failed to establish a prima facie case of obviousness for claims 51-57 for this additional reason.

For the foregoing reasons, Appellant has persuaded us of error in the Examiner's rejection of claims 43-60. Therefore, we will not sustain the Examiner's rejection of those claims.

OTHER OBVIOUSNESS REJECTIONS

Regarding the obviousness rejections of (1) claim 41 over Suzuki and Lindemann (Ans. 6), and (2) claim 42 over Suzuki, Clark, and Wallace (Ans. 6-7), since we find that the cited additional references do not cure the previously-noted deficiencies of Suzuki regarding independent claim 40, we will not sustain the obviousness rejection of dependent claims 41 and 42 for similar reasons.

CONCLUSIONS

Appellant has shown that the Examiner erred in rejecting (1) claims 30-40 under § 102, and (2) claims 41-60 under § 103.

ORDER

The Examiner's decision rejecting claims 30-60 is reversed.

REVERSED

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